

# CO2 Incubator CR series CO2, O2, N2 Incubator CST series

IR sensor, auto-control CO2 concentration

CR-80 CR-160

CST-80 CST-160



# Gather all the essence of Kenton technology Together with researchers

Perfect products from KENTON--- Human engineering design, the high-precision micro-computer control, temperature control, best components, as well as advanced manufacturing technology ensure your successful experiment.



Environmental science



Biological engineering



Drug testing



Health and epidemic prevention

## CR series CO2 Incubator

- 1.Used in cell culture, microbiology, pathology academic, life science fields;
- 2.CR series CO2 Incubator succeeded in creating a natural growth of the same simulation environment, ALLHEAT™ Chamber heating technology to provide a stable temperature, the professional-grade IR CO2 sensor, more accurately detect CO2 concentration;
- 3.Equipped with UV sterilization lamp, effectively prevent the cultivation of cross-contamination;
- 4.The incubator door has a constant temperature system installed to keep the temperature of the inner tank constant and lessen the impact of outside factors on the temperature of the inner tank objects
- 5.The stainless steel liner uses fully seamless welding and bonding procedures to guarantee the studio's temperature stability and remove outside interference
- 6.The fan and air inlet valve automatically shut off when the oven door is opened, minimizing pollution from outside air entry
- 7.The air inlet is standard equipped with a gas filter device, and the inner tank is equipped with an ultraviolet sterilization lamp for disinfection, effectively preventing cross-contamination of culture
- 8.IQ、 OQ、 PQ and other related certification services.
- 9.CE certification,complies with AS2064 standards,Three years warranty period.

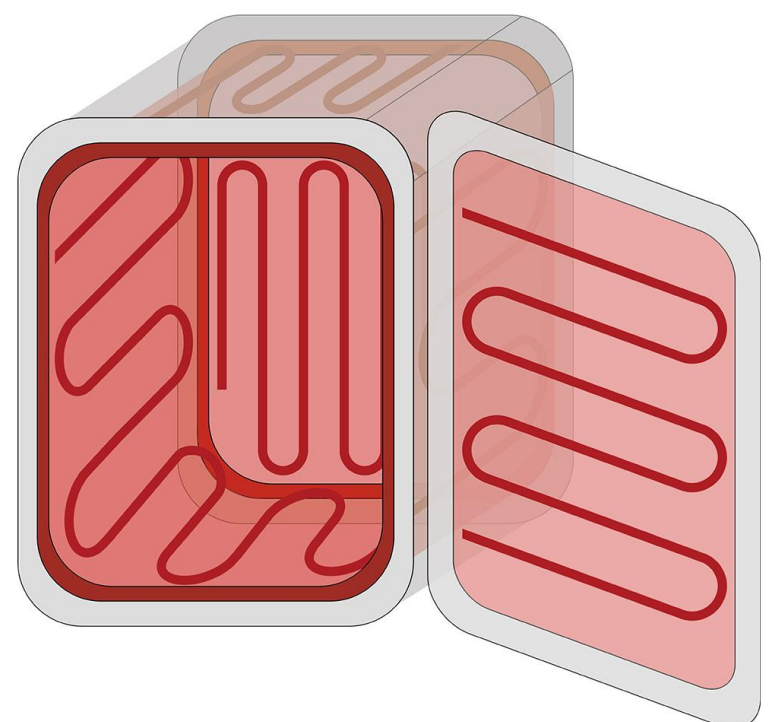
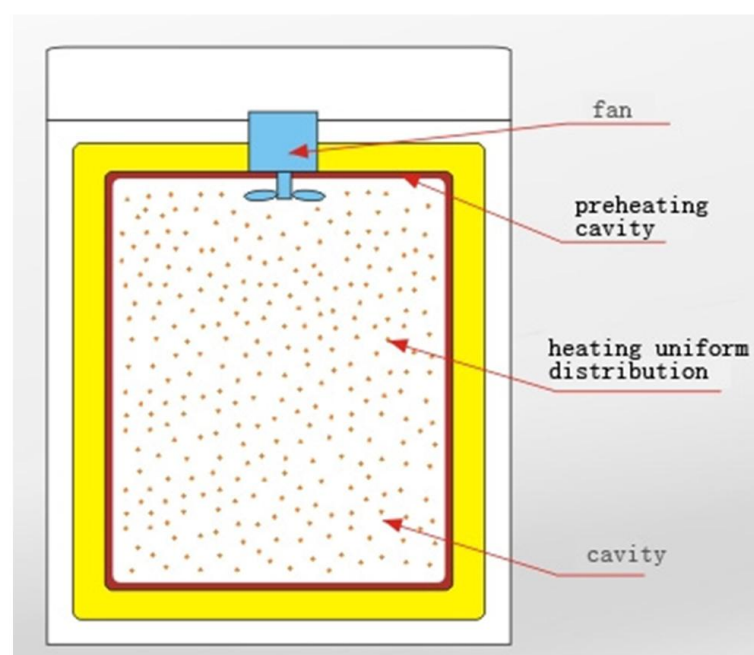


# CST series Tri-Gas Incubator

1. These CST series incubator are used in cell tissue culture in the fields of medicine, bioscience, etc.
2. The CST series uses a touch-screen microcomputer intelligent integrated control panel and professional-grade infrared CO<sub>2</sub> and O<sub>2</sub> sensors to achieve precise control of the three gases by controlling the input of CO<sub>2</sub>, O<sub>2</sub> or N<sub>2</sub>
3. When the O<sub>2</sub> concentration is greater than 23%, the incubator turns on O<sub>2</sub> gas and once it reaches the O<sub>2</sub> concentration set value, the incubator then turns on CO<sub>2</sub> gas. To ensure CO<sub>2</sub> and O<sub>2</sub> concentration accuracy, the system will turn on N<sub>2</sub> gas when the O<sub>2</sub> concentration is less than 19% and turns on CO<sub>2</sub> once it reaches the O<sub>2</sub> concentration specified value;
4. The incubator door has a constant temperature system installed to keep the temperature of the inner tank constant and lessen the impact of outside factors on the temperature of the inner tank objects
5. The stainless steel liner uses fully seamless welding and bonding processes to guarantee the workshop's temperature stability and remove interference from outside sources
6. The fan and air inlet valve automatically shut off when the incubator door is opened to lessen pollution from outside air entry
7. The air inlet is equipped with a standard gas filter device and a UV sterilization lamp for disinfection, which effectively prevents cross-contamination of cultures;
8. Chinese/English versions of IQ, OQ, and PQ are available. And can provide a variety of verification services.
9. Has passed the EU CE safety certification, complies with Australian AS2064 standards, and is covered by 3 years quality warranty.

## ALLHEAT Chamber preheating technology

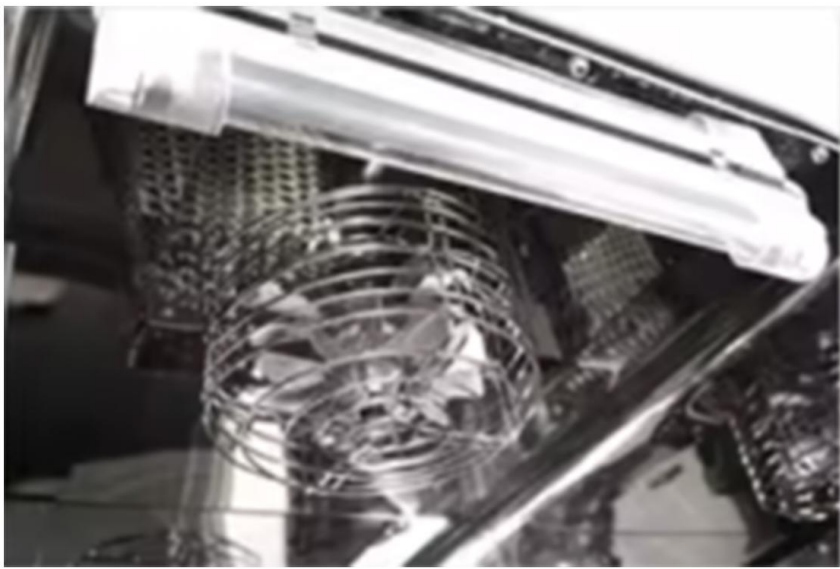
1. ALLHEAT Chamber preheating technology is the heating element is evenly distributed in the interior pre-heating of the cavity inner wall, and then through the heat transfer and forced-fan convection, so that the temperature of each cavity can accurately reach and maintain the set value, thus ensuring uniform distribution of the cavity temperature.
2. Chamber of six surface heating, in which the door to possession of the heating system to prevent condensation of glass doors.
3. ALLHEAT series CO<sub>2</sub> Incubator with low energy consumption and heat characteristics not easily lost. Save energy, enabling customers to use the cost reduction.
4. The incubator door has a constant temperature system installed to keep the temperature of the inner tank constant and lessen the impact of outside factors on the temperature of the inner tank objects



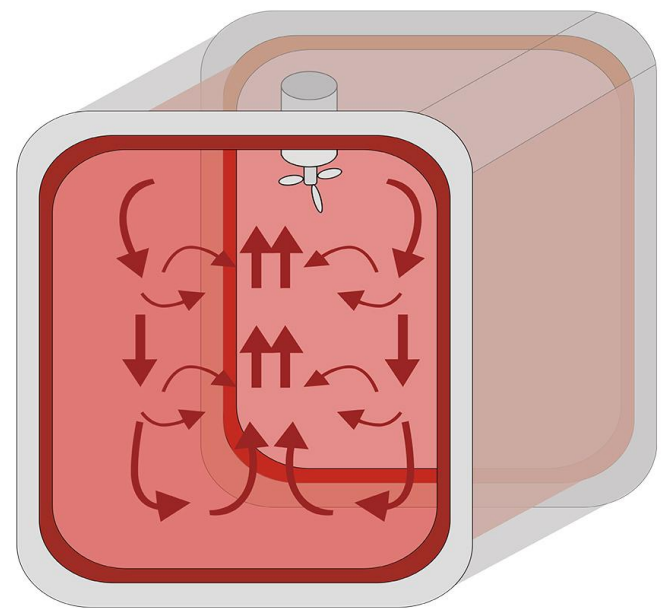


# ALLFLOW Clean Air Circulation System

- 1.Perfect forced convection ALLFLOW of air circulation system to ensure the shortest of temperature recovery after door. With internationally renowned brands with a cooling fan (maintenance, durability), the experimental and the training effect to the extent desired;
- 2.ALLFLOW air circulation system sufficiently to ensure the continuous stability of the temperature of the working chamber. Customer set temperature is reached, given the perfect environment for sample roasting / culture;
- 3.CO2 inlet valve with a filter device to ensure cleanliness of the cavity gas;
- 4.The carbon dioxide air inlet valve is equipped with a filter device to effectively ensure the cleanliness of the gas inside the incubator;
- 5.Equipped with UV sterilization system in the chamber regular basis to eliminate the cavity contaminating microorganisms, effectively prevent the training during the cross-contamination.



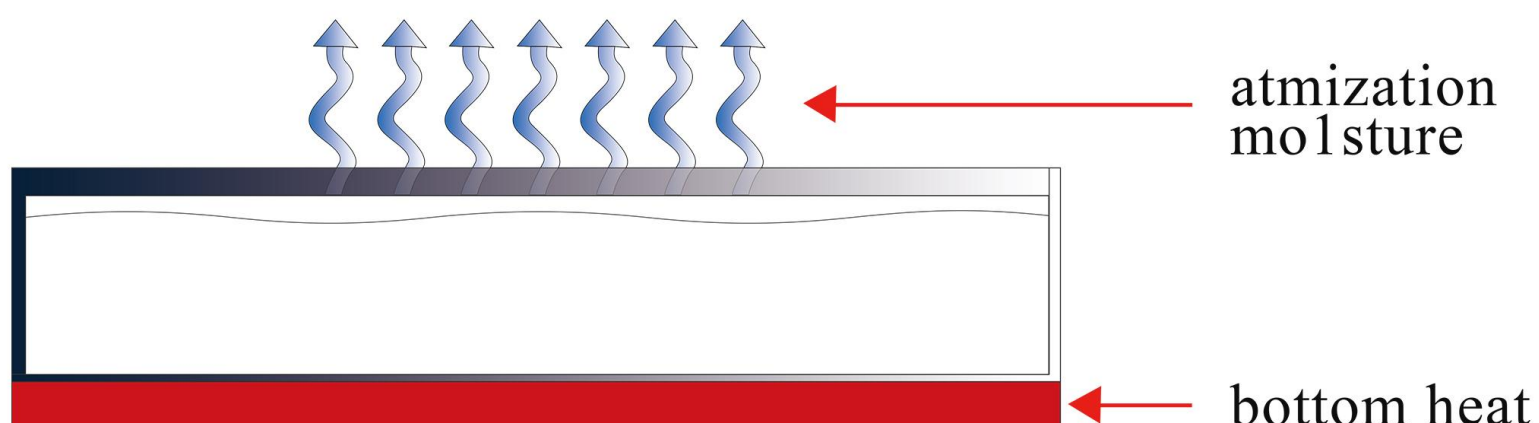
**Circulating Fan**



**Clean Air Circulation System**

# ALLMIST Inside Water Pan Humidification Technology

- 1.The original water pan liner integrated humidifier design, that the water quickly atomized
- 2.Soft air with water vapor of the water pan out the cavity humidity up and recovery, to ensure that the culture needed to saturated water.



**Note:** This series of humidification is natural humidification and does not have the function of controlling humidity and constant humidity. If you need this function, you can choose LRH-CR or LRH-CST series.

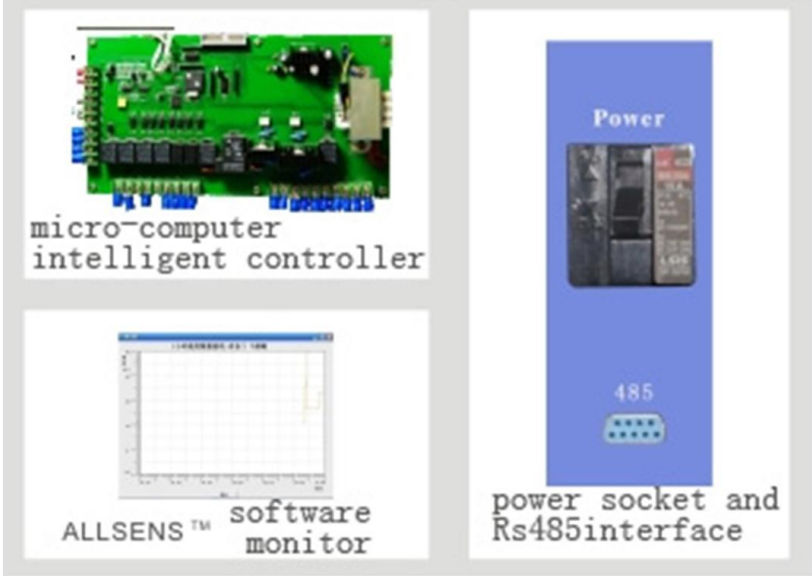
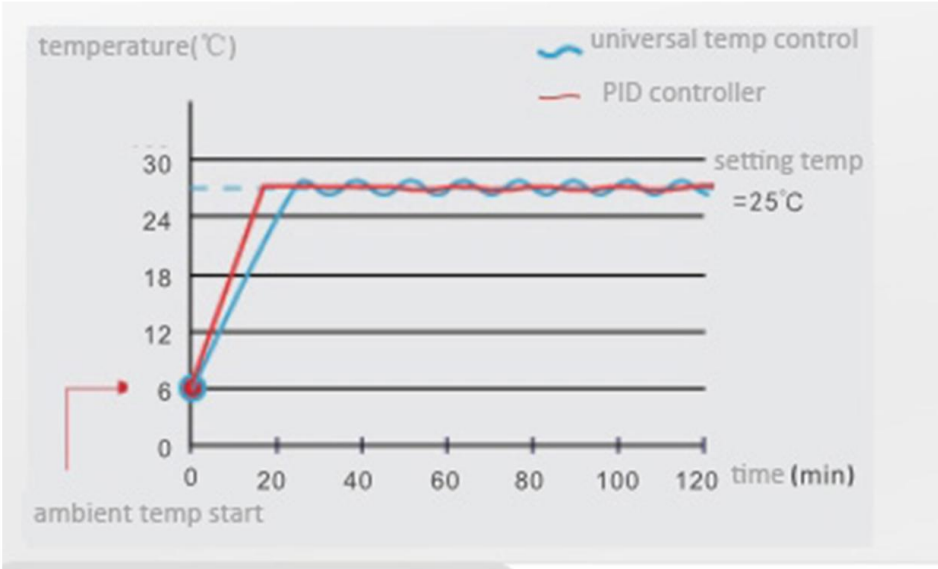


# ALLSENS Programmable PID Controller

- 1.Integrated,Touch LCD screen,English subtitles, design for the highest operational comfort. Display parameters: Temp. Setting value; Temp. Measuring value, Humidity, CO2 setting value, CO2 measuring value, The tri-gas incubator also has the setting and concentration value of O2 or N2. Heating, Fast input, Sloe input, Sterilization, run/stop.
- 2.Adaptive PID controller precisely control the temperature, prevent temperature soaring, keep working room temperature stable and uniformity, alongside with a high-temperature alarm
- 3.User password protection, built-in multifunctional memory menu with USB interface data recording and storage function, it can be connected to multiple devices at the same time through the standard RS485 interface and real-time monitoring.
- 4.Set operations with beep tips
- 5.Remote-controlled operation,with programmable ALLSENS software.



Touch LCD screen





## Ergonomic design

- 1.Laboratory of classical color design, international fashion design, arc-shaped design, for highest operational comfort.
- 2.Integrated design that contains original outside handle and LCD screen, ergonomic structure, comfortable viewing angle, convenient to open the outside door and operate interface.
- 3.Interval and number of mesh shelf can be adjusted according to customer requirements. Maximum capacity to meet customer needs.
- 4.Vertical cabinet classic design of structural, electrical components located in the upper cabinet to facilitate maintenance;
- 5.Comfortable vertical structure, maximize work chamber, working room in the upper, convenient to take.
- 6.Double door design, easy observation samples, keep temperature stability, with bell-type lighting system.
- 7.The inner glass door with  $\varnothing 8\text{mm}$  hole to collect gas sample.



## Modern manufacturing processes

- 1.Sheet metal parts use laser cutting and CNC bending technology. Cold-rolled sheets use three line of acidification anti-rust technology. Incubator surface use workmanship of spraying plastics.
- 2.Inner chamber is made of SUS304 stainless steel materials.





## Easy to clean

- 1.Internal surface is smooth and less weld , easy cleaning and maintenance.
- 2.Pull multilayer shelf design, less metal accessories, easy to clean.
- 3.Drainage design of chamber humidification collecting tank. User can discharge water as required to avoid bacteria.
- 4.Water pan drainage design, the user may need to open the valve, put the best water to avoid bacteria.



## Convenient maintenance

- 1.Liquid crystal micro-computer controller with diagnostic function. Display operating parameters including historical record, temperature and humidity data.
- 2.Electrical control components and working room are installed separately. Especially electrical control output parts, which are installed in incubator bottom, easy to maintenance.

## Secure and efficient protection concept

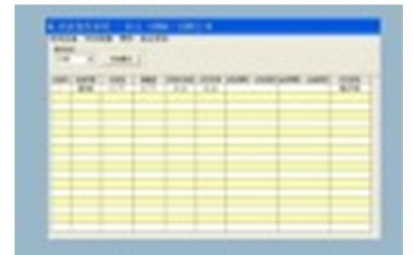
- 1.Multiple over temperature protection function, sound and light alarm.
- 2Automatic double over temperature protection function.
- 3.Main components are UL certified.
- 4.All over temperature protection devices meet Germany standard DIN standard D12880 Class 3.1.

## Optional product accessories

1. Portable printer
2. Air interface
3. ALLSENSTM software
4. High-efficiency gas filter
5. Test hole
6. SUS304 stainless steel punched laminate
7. Glass interior doors with independent
- 8 partition opening and closing



Printer



ALLSENS software



gas filter



Test hole



## Optional independent multi-compartment access



The CR series has added an optional independent stratified multi-compartment access design.

Each compartment is equipped with an independent switch sealed observation window. Different samples can be stored in different zones to avoid the loss of carbon dioxide caused by frequent opening of large areas, making experimental management more flexible.



- 1.All technical data is under no load conditions, environment temperature 25°C, relative humidity 50%RH, voltage fluctuation  $\pm 10\%$ , no obvious shock and dust.
- 2.KENTON may change the above technical parameters at any time. There is deviation about product appearance due to some factors such as the photographic or printed result, please understand and reserves the final right of interpretation.



### Meet international standards

**Temperature safety standard: Germany DIN 12880 Class 3.1**

**Electrical safety standards: International IEC61010-1/**

**US UL61010-1/ EU EN61010-1**



Comparison list	CR (Professional type)	HCP (Basic type)
		
<b>Controller</b>		
PID LCD touch screen	●	
PID digital		●
<b>Brand accessories</b>		
Sense Air concentration sensor	●	
ST bi type silicon controlled	●	
Philip chip	●	
Taiwan optical coupler	●	
SENSIRION sensor	●	
<b>Internal material</b>		
SUS304 St. steel	●	●
<b>Motor fan</b>		
High temperature resistant bearing	●	●
Heat dissipation fan	●	●
<b>Electric element</b>		
Carbon electric film	●	●
<b>CO2 control way</b>		
Auto control	●±0.1	
Manual control		●
<b>RS232 outfit</b>	●	
<b>Remote control</b>	●	
<b>ALLHEAT chamber preheating</b>	●	●
<b>ALLFLOW</b>	●	●
<b>ALLSENS</b>	●	
<b>ALLMIST</b>	●	●
<b>Insulation</b>	●	
<b>Heating sides</b>	6 sides	5 sides
<b>Air duct</b>	3D	3D
<b>Door seal</b>	Silicone+magnetic	Silicone+magnetic
<b>Insulation</b>	aluminium silicate	aluminium silicate
<b>Temp accuracy °C</b>	±0.1	±0.5
<b>fluctuation</b>	±0.5%	±0.5%
<b>Temp. uniformity</b>	±0.5%	±1%
<b>Cut-off memory</b>	●	
<b>Timer</b>	●	●
<b>Alarm</b>	●	●
<b>Warranty</b>	3 years	2 years



## **Manufacture of drying oven, lab incubator, climate chamber, laminar flow cabinet, biological safety cabinet(OEM,ODM)**

### **KENTON APPARATUS LIMITED**

KENTON Apparatus Limited was found in 1999, production plant was set in Guangzhou, China. It is mainly engaged in production, sales and export of laboratory thermostatic equipment and biological scientific equipment, and has provided high-quality products and services for professional laboratories and scientific research institutions at domestics and abroad for many years. We relies on an international professional R&D team to keep the design and technology of products in step with the world and constantly seek breakthroughs. Since its establishment, the company has been focusing on thermostatic equipment products in related fields. Now it is a high-tech enterprise integrating science, industry and trade. Its business covers China, Southeast Asia, America, Europe, Australia and other countries. At the same time, based on the business philosophy of "walking with scientific researchers", and taking advantage of the company's geographical advantages, the company has carried out extensive communication and exchange with scientific researchers in different regions for many years, and carried out long-term follow-up services to users, constantly improving the function and quality of products, so that products can better meet the requirements of users.

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